

**STATE OF NEW HAMPSHIRE**  
**INTRA-DEPARTMENT COMMUNICATION**

**FROM:** Michael J. Dugas, P.E. **DATE:** April 20, 2012  
Chief of Preliminary Design **AT (OFFICE):** Bureau of Highway Design

**SUBJECT:** Misc. Eng. District 6  
1832-J  
Proposed Gas station/ Conv. Store  
Barrington, NH Rte 125

**TO:** Kevin Russell, P.E. Thru: Douglas Deporter, P.E.  
District 6

**MEMORANDUM**

The Preliminary Design Section has reviewed the Traffic Impact Study (TIS) dated December 2011 prepared by Stephan G. Pernaw & Company, Inc. for the subject development. The development includes a proposed 5,000 sf single-story convenience store/gas station that will be located on a 1.84 acre parcel on the east side of NH 125; approximately four hundred feet north of the NH125/NH9 signalized intersection. Revised concept plans were submitted to District 6 on March 30, 2012. We offer the following comments:

1. The plan shows widening the west side of Route 125 to provide two SB receiving lanes. The lane layout shown is acceptable. The 35:1 lane drop to transition back to existing conditions is adequate for the design speed. However, the lane drop is located on a horizontal curve, which makes it appear abrupt. The lane drop taper rate should be increased to 45:1 to provide a smoother appearance to the lane layout within the horizontal curve.
2. The revisions to the median treatment, which preserves a portion of the existing raised median nearest the NH 9 intersection and removes the remainder in favor of painted medians, are acceptable to Highway Design.
3. With the addition of the second thru lane the existing 10' southbound shoulder would be narrowed to 4'. We recommend that a 10' wide shoulder be perpetuated on the southbound side of the road from the Aroma Joe's driveway south to the end of the work, to continue to accommodate right turns into the several driveways in this area. North of the Aroma Joe's driveway the shoulder can narrow to match into the proposed 4' shoulder at the south end of the second southbound through lane.
4. The layout for the left turn lane into the proposed site is acceptable.

MJD/mem

cc: W. Cass, W. Oldenburg, W. Lambert

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